

IN THE CLAIMS

1 1. (original) A method for displaying an image only to an authorized user,
2 comprising:
3 generating a data image;
4 generating a mask image, wherein the mask image is a negation of the data
5 image;
6 selecting the data image or the mask image according to a select signal; and
7 sequentially displaying the selected images on a display device.

1 2. (original) The method of claim 1 further comprising;
2 opening an optical shutter device when the data image is displayed;
3 shutting the optical shutter device when the mask image is displayed so that
4 only the data image is perceived by the authorized user viewing the display device
5 through the optical shutter device, and a gray image is perceived by an
6 unauthorized user viewing the data and mask images directly, the opening and
7 shutting synchronized in phase and frequency to the select signal.

1 3. (original) The method of claim 2 wherein the optical shutter device includes a
2 polarizing lens on either side of a ferro-electric liquid crystal polarization rotator.

1 4. (original) The method of claim 2 further comprising:
2 synchronizing the displaying, and the opening and shutting by a wire link.

1 5. (original) The method of claim 2 further comprising:
2 synchronizing the displaying, and the opening and shutting by a wireless
3 link.

1 6. (original) The method of claim 5 wherein the synchronization is according to a
2 phase of the select signal.

1 7. (original) The method of claim 1 wherein each image is a color image, and the
2 negation is done independently for each color channel of the color image.

1 8. (original) The method of claim 7 further comprising:
2 gamma-correcting each color channel after the negation.

1 9. (original) The method of claim 7 wherein each input pixel of each color image
2 has an intensity in a range from 0 to 255, and each output pixel is determined by:
3
$$\text{output} = 255((\text{input}/255)^{1/\gamma}) + 0.5.$$

1 10. (original) The method of claim 1 wherein the select signal is generated by a
2 clock, and further comprising:
3 alternately selecting the data and mask images according to clock cycles.

1 11. (original) The method of claim 1 wherein the select signal is generated by a
2 random generator.

1 12. (previously presented) The method of claim 11 wherein the displayed images
2 occur in pairs so that each pair includes a first image and a second image in a
3 random order.

1 13. (original) The method of claim 11 wherein the random generator operates
2 according to an internal seed value and a real-time supplied value.

1 14. (previously presented) The method of claim 2 further comprising:
2 generating a first random select signal to select the displayed images;
3 generating a second random select signal to open and shut the optical shutter
4 device; and
5 synchronizing the second random select signal to the first random select
6 signal.

1 15. (original) The method of claim 1 wherein each data image includes a plurality
2 of pixels, and further comprising:
3 negating each pixel of the data image serially to generate each corresponding
4 pixel of the mask image; and
5 serially selecting each pixel of the data image or the mask image according
6 to a select signal; and
7 sequentially displaying the selected pixels on a display device.

1 16. (original) The method of claim 15 further comprising:
2 opening an optical shutter device when the selected pixel of the data image
3 is displayed;
4 shutting the optical shutter device when the selected pixel of the mask image
5 is displayed so that only the data image is perceived by the authorized user viewing
6 the display device through the optical shutter device, and a gray image is perceived
7 by an unauthorized user viewing the data and mask images directly, the opening
8 and shutting synchronized in phase and frequency to the select signal.

1 17. (original) The method of claim 16 wherein the select signal is generated by a
2 clock, and further comprising:

3 alternately selecting the pixel from the data and the pixel from the mask
4 images according to clock cycles.

1 18. (original) The method of claim 1 wherein the select signal is generated by a
2 random generator.

1 19. (original) The method of claim 1 wherein a plurality of data images are
2 provided in a video, and each data image is sequentially negated to produce the
3 corresponding mask image.

1 20. (cancelled)

1 21. (cancelled)

1 22. (cancelled)

1 23. (cancelled)

1 24. (cancelled)

1 25. (original) An apparatus for displaying an image only to an authorized user,
2 comprising:

3 a video camera generating a data image;

4 an inverter for generating a mask image, wherein the mask image is a
5 negation of the data image;

6 a controller generating a select signal for selecting the data image or the mask
7 image; and

8 a display device for sequentially displaying selected images on a display
9 device.

1 26. (original) The apparatus of claim 25 further comprising:
2 an optical shutter device opened when the data image is displayed and
3 closed when the mask image is displayed so that only the data image is perceived
4 by the authorized user viewing the display device through the optical shutter
5 device, and a gray image is perceived by an unauthorized user viewing the data and
6 mask images directly, the opening and shutting of the optical shutter device
7 synchronized in phase and frequency to the select signal.

1 27. (original) The apparatus of claim 25 wherein the data and mask images are
2 selected periodically.

1 28. (original) The apparatus of claim 25 wherein the data and mask images are
2 selected randomly.

1 29. (previously presented) The apparatus of claim 25 wherein each image includes
2 a plurality of pixels, and wherein each pixel of the data image negated serially.